AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-25. (canceled).

26. (previously presented): The device of claim 63, wherein said reticulated elastomeric matrix is resiliently compressible.

27. (previously presented): The device of claim 63, wherein said reticulated elastomeric matrix comprises a reticulated biodurable elastomeric matrix.

28. (previously presented): The device of claim 63, wherein said reticulated elastomeric matrix being formed in said second configuration, compressed to said first configuration for delivery into the internal volume of the vascular malformation, and allowed to expand to said second configuration in vivo.

29. (previously presented): The device of claim 63, wherein said vascular malformation is an aneurysm, a sac, an endo leak, or a perigraft space between an endograft and the vascular malformation.

30. (previously presented): The device of claim 63,

wherein said reticulated elastomeric matrix comprises at least one fluid passageway, providing blood flow through said at least one implant and into the internal volume of the vascular malformation, and

wherein the blood flow being sufficient to promote cellular ingrowth and proliferation at the internal wall.

31. (withdrawn): An abnormal physiological formation treatment device according to claim 25, wherein said polymeric foam comprises a plurality of interconnected struts which bear against at least a portion of said internal wall to support said portions against which said interconnected struts bear.

32. (previously presented): The device of claim 63, further comprising one more implant comprising a polymeric matrix, said one more implant being expandable from a third configuration to a fourth configuration, the fourth configuration being larger than the third configuration,

wherein said third configuration is sized for delivery into the internal volume of the vascular malformation.

33. (previously presented): The device of claim 63, wherein the at least one implant further comprises a projecting portion for facilitating positioning of the implant by a surgeon.

34. (previously presented): The device of claim 63, further wherein the at least one implant consists essentially of a reticulated biodurable elastomeric matrix.

35. (previously presented): The device of claim 63, further comprising an element comprising a material different from said reticulated elastomeric matrix.

36. (previously presented): The device of claim 35, wherein said element comprises a flexible material.

37. (previously presented): The device of claim 35, wherein said element comprises a strut-like shape.

38. (previously presented): The device of claim 37, wherein said strut-like shape supports at least a part of the internal wall of the vascular malformation.

39. (previously presented): The device of claim 37, wherein said strut-like shape comprises a support rod.

40. (previously presented): The device of claim 63, wherein said at least one implant being adjustable to a suitable position within the internal volume of the vascular malformation.

41. (previously presented): The device of claim 40, said at least one implant being substantially relaxed following insertion into the internal volume of the vascular malformation.

42. (previously presented): The device of claim 63, wherein said second configuration comprises an elongated configuration.

43. (previously presented): The device of claim 42, wherein said elongated configuration comprises a substantially round cross-section.

44. (withdrawn): An abnormal physiological formation treatment device as in claim 19 wherein said implant is substantially configured as a cylinder.

45. (withdrawn): An abnormal physiological formation treatment device as in claim 43 wherein said implant is substantially configured as a bullet shape with a blind hollow volume.

46. (withdrawn): An abnormal physiological formation treatment device according to claim 25, wherein an irregular cutout has been removed from said implant.

47. (withdrawn): An abnormal physiological formation treatment device as in claim 25, wherein said abnormal physiological formation is in fluidic communication with an artery and further comprising a sheath placed in the lumen of the artery.

48. (withdrawn): An abnormal physiological formation treatment device as in claim 25, wherein said implant is ribbed in configuration.

49. (withdrawn): An abnormal physiologieal formation treatment device as in claim 25 wherein said implant has a skeletal structure comprising support members and defining open spaces.

50. (canceled).

51. (previously presented): The device of claim 63, wherein said reticulated elastomeric matrix comprises pores having an average diameter from about 50 μm to about 800 μm.

52. (previously presented): The device of claim 51, wherein said reticulated elastomeric matrix comprises a reticulated biodurable elastomeric matrix.

53. (previously presented): The device of claim 63, wherein said reticulated elastomeric matrix comprises pores having an average diameter from about 100 μm to about 500 μm.

54. (previously presented): The device of claim 63, wherein said reticulated elastomeric matrix comprises a biodurable elastomeric polyurethane matrix comprising a polycarbonate polyol component and an isocyanate component.

55. (previously presented): The device of claim 27, wherein said reticulated biodurable elastomeric matrix comprises a polycarbonate polyurethane, polycarbonate polyurethane urea, polysiloxane polyurethane, polysiloxane polyurethane urea, polycarbonate-polysiloxane polyurethane, polycarbonate-polysiloxane polyurethane urea, or a mixture thereof.

56. (previously presented): The device of claim 63, wherein said reticulated elastomeric matrix comprises a growth factor.

57. (previously presented): The device of claim 63, wherein said reticulated elastomeric matrix comprises elastin.

58. (previously presented): The device of claim 63, wherein said reticulated elastomeric matrix comprises a radiopaque substance.

59-60. (canceled).

61. (withdrawn): A treatment device for an abnormal physiological formation containing blood under pressure, such as an aneurysm or a leaky repaired formation, for in situ treatment of said abnormal physiological formation in a mammal, optionally a human, said abnormal physiological formation having an internal wall defining an internal volume, the treatment device comprising at least one expandable implant, said at least one expandable implant being expandable from a first relatively small implant configuration to a second relatively large implant configuration providing support for at least a portion of the internal wall of the abnormal physiological formation, said at least one implant comprising an expandable polymeric foam, wherein said implant has a surface with elevations and depressions structured to allow a flow of blood to promote cellular metabolism at the surface of said internal wall.

62. (withdrawn): A method of making a treatment device for treating an abnormal physiological formation containing blood under pressure, such as an aneurysm or a leaky repaired formation in a mammal, optionally a human, said abnormal physiological formation having an internal wall defining an internal volume, the method of making comprising forming a polymeric foam comprising a biodurable elastomeric polyurethane matrix, wherein the biodurable elastomeric polyurethane matrix comprises a polycarbonate polyol component and an isocyanate component formed by polymerizing, cross-linking and foaming to form a resultant foam, followed by reticulation of the resultant foam.

63. (currently amended): A device for treating a vascular malformation, wherein said vascular malformation has an internal wall defining an internal volume containing blood under pressure, the device comprising:

at least one implant comprising a reticulated elastomeric matrix, said at least one implant being expandable from a first configuration to a second configuration, the second configuration being larger than the first configuration and defining an implant volume in said second configuration,

wherein said first configuration is sized for delivery into the internal volume of the vascular malformation, ~~and~~

wherein said second configuration is fitted at least in part to a shape of the internal wall, providing physical support to the internal wall of the vascular malformation, and

wherein the implant volume is less than the internal volume of the vascular malformation.

64. (previously presented): The device of claim 63, wherein said second configuration includes a convex outer surface in at least partial contact with the internal wall of the vascular malformation.

65. (previously presented): The device of claim 63, wherein said reticulated elastomeric matrix comprises pores having an average diameter from about 200 μm to about 400 μm.

66. (previously presented): The device of claim 54, wherein said isocyanate component comprises at least one of 4,4'-diphenylmethane diisocyanate and 2,4'-diphenylmethane diisocyanate.

67. (currently amended): A device for treating a vascular malformation, wherein said vascular malformation has an internal wall defining an internal volume containing blood under pressure, the device comprising:

at least one implant comprising a biodurable reticulated elastomeric matrix, said at least one implant being expandable from a first configuration to a second configuration, the second configuration being larger than the first configuration and defining an implant volume in said second configuration,

wherein said first configuration is sized for delivery into the internal volume of the vascular malformation, ~~and~~

wherein said second configuration provides support to the internal wall of the vascular malformation, and

wherein the implant volume is less than the internal volume of the vascular malformation.

68. (new): The device of claim 66, wherein said isocyanate component comprises at mixture of 4,4'-diphenylmethane diisocyanate and 2,4'-diphenylmethane diisocyanate.